



# MMWR

## Morbidity and Mortality Weekly Report

Weekly

June 18, 2004 / Vol. 53 / No. 23

### Cigarette Use Among High School Students — United States, 1991–2003

Cigarette use is the leading preventable cause of death in the United States (1). One of the national health objectives for 2010 is to reduce the prevalence of current cigarette use among high school students to  $\leq 16\%$  (objective no. 27-2b) (1). To examine changes in cigarette use among high school students in the United States during 1991–2003, CDC analyzed data from the national Youth Risk Behavior Survey (YRBS). This report summarizes the results of that analysis, which indicated that although 1) the prevalence of lifetime cigarette use was stable among high school students during the 1990s and 2) the prevalence of both current and current frequent cigarette use increased into the late 1990s, all three behaviors had declined significantly by 2003. Prevention efforts must be sustained to ensure this pattern continues and the 2010 objective is achieved.

The national YRBS, a component of CDC's Youth Risk Behavior Surveillance System, used independent three-stage cluster samples for the 1991–2003 surveys to obtain cross-sectional data representative of public and private school students in grades 9–12 in all 50 states and the District of Columbia. During 1991–2003, sample sizes ranged from 10,904 to 16,296, school response rates ranged from 70% to 81%, student response rates ranged from 83% to 90%, and overall response rates ranged from 60% to 70%. For each cross-sectional national survey, students completed an anonymous, self-administered questionnaire that included identically worded questions about cigarette use.

For this analysis, temporal changes for three behaviors were assessed: 1) lifetime cigarette use (i.e., ever tried cigarette smoking, even one or two puffs), 2) current cigarette use (i.e., smoked cigarettes on  $\geq 1$  of the 30 days preceding the survey), and 3) current frequent cigarette use (i.e., smoked cigarettes on  $\geq 20$  of the 30 days preceding the survey). For current cigarette use, temporal changes and subgroup differences in 2003 were analyzed by sex, race/ethnicity, and grade. Data are presented only for non-Hispanic black, non-Hispanic white, and

Hispanic students because the numbers of students from other racial/ethnic groups were too small for meaningful analysis.

Data were weighted to provide national estimates, and SUDAAN was used for all data analyses. Temporal changes were analyzed by using logistic regression analyses that assessed linear and quadratic time effects simultaneously and controlled for sex, race/ethnicity, and grade. Quadratic trends indicated significant but nonlinear trends in the data over time. When a significant quadratic trend accompanied a significant linear trend, the data demonstrated a nonlinear variation (e.g., leveling off or change in direction) in addition to an overall increase or decrease over time. T-tests were used to examine differences in current cigarette use in 2003 by sex, race/ethnicity, and grade. All results are statistically significant ( $p < 0.05$ ) unless otherwise noted.

Significant linear and quadratic trends were detected for lifetime and current cigarette use. The prevalence of lifetime cigarette use, although stable during the 1990s, declined significantly, from 70.4% in 1999 to 58.4% in 2003 (Table 1). The prevalence of current cigarette use increased from 27.5% in 1991 to 36.4% in 1997 and then declined significantly to 21.9% in 2003. A significant quadratic trend was detected for current frequent cigarette use; the prevalence increased from 12.7% in 1991 to 16.7% in 1997 and 16.8% in 1999, then declined significantly to 9.7% in 2003.

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The *MMWR* series of publications is published by the Epidemiology Program Office, Centers for Disease Control and Prevention (CDC), U.S. Department of Health and Human Services, Atlanta, GA 30333.

#### SUGGESTED CITATION

Centers for Disease Control and Prevention. [Article Title]. *MMWR* 2004;53:[inclusive page numbers].

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Significant linear and quadratic trends were detected in current cigarette use among both sexes (Table 2). Among female students, the prevalence of current cigarette use peaked during 1997–1999 and then declined significantly to 21.9% in 2003. Among male students, the prevalence of current cigarette use peaked in 1997 and then declined significantly to 21.8% in 2003. Similarly, among white, white female, Hispanic, Hispanic female, Hispanic male, and 9th- and 11th-grade students, current cigarette use prevalence peaked by 1997 and then declined significantly in 2003. Significant quadratic trends were detected among white male, black, black female, black male, and 10th- and 12th-grade students, indicating that the prevalence of current cigarette use peaked by 1999 and then declined significantly.

During 2003, white students were significantly more likely than black and Hispanic students to report current cigarette use. More white female students than black and Hispanic female students and more Hispanic female than black female students reported current cigarette use. The prevalence of current cigarette use was not significantly different among white, black, and Hispanic male students. By grade level, significantly more 10th-, 11th-, and 12th-grade students than 9th-grade students and more 12th-grade than 10th-grade students reported current cigarette use.

**Reported by:** *Office on Smoking and Health; Div of Adolescent and School Health, National Center for Chronic Disease Prevention and Health Promotion, CDC.*

**Editorial Note:** The findings in this report indicate that the prevalence of current cigarette use has declined substantially since the late 1990s and is at the lowest level since YRBS was initiated in 1991. These findings are consistent with trends observed in other national surveys, although the other surveys suggest the rate of decline might be slowing (2–4). Factors that might have contributed to the decline in cigarette use include 1) a 90% increase in the retail price of cigarettes during December 1997–May 2003 (5), 2) increases in school-based efforts to prevent tobacco use, and 3) increases in the proportion of young persons who have been exposed through the mass media to smoking-prevention campaigns funded by states or the American Legacy Foundation (6). Factors that might have slowed the rate of decline in cigarette use among young persons include 1) tobacco industry expenditures on tobacco advertising and promotion, which increased from \$5.7 billion in 1997 to \$11.2 billion in 2001 (7); 2) reductions in Master Settlement Agreement funds used for tobacco-use prevention; and 3) the frequency with which smoking was depicted in films (8).

**TABLE 1. Percentage of high school students who reported lifetime cigarette use\*, current cigarette use†, and current frequent cigarette use‡, by category — Youth Risk Behavior Survey, United States, 1991–2003§**

Category	1991		1993		1995		1997		1999		2001		2003	
	%	(95% CI)**	%	(95% CI)	%	(95% CI)	%	(95% CI)	%	(95% CI)	%	(95% CI)	%	(95% CI)
Lifetime	70.1	(±2.2)	69.5	(±1.4)	71.3	(±1.7)	70.2	(±1.9)	70.4	(±3.0)	63.9	(±2.1)	58.4	(±3.1)†† §§
Current	27.5	(±2.7)	30.5	(±1.9)	34.8	(±2.2)	36.4	(±2.3)	34.8	(±2.5)	28.5	(±2.0)	21.9	(±2.1)†† §§
Current frequent	12.7	(±2.2)	13.8	(±1.7)	16.1	(±2.6)	16.7	(±1.9)	16.8	(±2.5)	13.8	(±1.6)	9.7	(±1.4)§§

\* Ever tried cigarette smoking, even one or two puffs.

† Smoked cigarettes on ≥1 of the 30 days preceding the survey.

‡ Smoked cigarettes on ≥20 of the 30 days preceding the survey.

§ Linear and quadratic trend analyses were conducted by using a logistic regression model controlling for sex, race/ethnicity, and grade. Prevalence estimates shown here were not standardized by demographic variables.

\*\* Confidence interval.

†† Significant (p&lt;0.05) linear effect.

§§ Significant quadratic effect.

**TABLE 2. Percentage of high school students who reported current cigarette use\*, by sex, race/ethnicity†, and grade — Youth Risk Behavior Survey, United States, 1991–2003§**

Characteristic	1991		1993		1995		1997		1999		2001		2003	
	%	(95% CI)**	%	(95% CI)	%	(95% CI)	%	(95% CI)	%	(95% CI)	%	(95% CI)	%	(95% CI)
<b>Sex</b>														
Female	27.3	(±3.4)	31.2	(±2.1)	34.3	(±3.2)	34.7	(±2.8)	34.9	(±2.6)	27.7	(±2.1)	21.9	(±2.8)††
Male	27.6	(±3.1)	29.8	(±2.3)	35.4	(±2.4)	37.7	(±2.7)	34.7	(±3.0)	29.2	(±2.6)	21.8	(±2.1)††
<b>Race/Ethnicity</b>														
White, non-Hispanic	30.9	(±3.3)	33.7	(±2.2)	38.3	(±2.7)	39.7	(±2.4)	38.6	(±3.2)	31.9	(±2.3)	24.9	(±2.4)††
Female	31.7	(±4.6)	35.3	(±2.6)	39.8	(±3.5)	39.9	(±3.2)	39.1	(±3.5)	31.2	(±2.5)	26.6	(±3.7)††
Male	30.2	(±3.8)	32.2	(±2.7)	37.0	(±3.3)	39.6	(±3.8)	38.2	(±3.7)	32.7	(±3.0)	23.3	(±2.5)††
Black, non-Hispanic	12.6	(±2.5)	15.4	(±2.5)	19.2	(±3.2)	22.7	(±3.8)	19.7	(±4.1)	14.7	(±2.8)	15.1	(±2.8)††
Female	11.3	(±2.3)	14.4	(±2.7)	12.2	(±3.1)	17.4	(±3.9)	17.7	(±3.5)	13.3	(±3.4)	10.8	(±2.9)††
Male	14.1	(±4.5)	16.3	(±4.2)	27.8	(±5.5)	28.2	(±5.5)	21.8	(±7.1)	16.3	(±3.2)	19.3	(±3.7)††
Hispanic	25.3	(±2.8)	28.7	(±2.9)	34.0	(±5.3)	34.0	(±2.7)	32.7	(±3.8)	26.6	(±4.3)	18.4	(±2.3)††
Female	22.9	(±3.8)	27.3	(±3.9)	32.9	(±5.6)	32.2	(±3.7)	31.5	(±4.6)	26.0	(±3.7)	17.7	(±2.1)††
Male	27.9	(±3.6)	30.2	(±3.4)	34.9	(±8.7)	35.5	(±3.6)	34.0	(±4.5)	27.2	(±7.0)	19.1	(±3.5)††
<b>Grade</b>														
9th	23.2	(±3.8)	27.8	(±2.4)	31.2	(±1.6)	33.4	(±5.1)	27.6	(±4.0)	23.9	(±2.9)	17.4	(±2.4)††
10th	25.2	(±2.7)	28.0	(±3.3)	33.1	(±3.8)	35.3	(±4.1)	34.7	(±2.5)	26.9	(±3.2)	21.8	(±2.9)††
11th	31.6	(±3.8)	31.1	(±3.2)	35.9	(±3.8)	36.6	(±3.6)	36.0	(±3.0)	29.8	(±3.7)	23.6	(±3.2)††
12th	30.1	(±4.4)	34.5	(±3.8)	38.2	(±3.6)	39.6	(±4.9)	42.8	(±5.5)	35.2	(±4.1)	26.2	(±2.8)††

\* Smoked cigarettes on ≥1 of the 30 days preceding the survey.

† Numbers for other racial/ethnic groups were too small for meaningful analysis.

§ Linear and quadratic trend analyses were conducted by using a logistic regression model controlling for sex, race/ethnicity, and grade. Prevalence estimates shown here were not standardized by demographic variables.

\*\* Confidence interval.

†† Significant (p&lt;0.05) linear effect.

‡ Significant quadratic effect.

The findings in this report are subject to at least two limitations. First, these data apply only to youths who attend high school. Nationwide, among persons aged 16–17 years, approximately 6% were not enrolled in a high school program and had not completed high school (9). Second, the extent of underreporting or overreporting in YRBS cannot be determined, although the survey questions demonstrate test/retest reliability (10).

Although the declines in cigarette use are encouraging, prevention efforts must be sustained if the nation is to reach its 2010 national health objective. In 2003, approximately one in five high school students were current smokers, and one in 10 were current frequent smokers. Reducing the prevalence of cigarette use further among young persons will require continued efforts in 1) devising targeted and effective media

campaigns, 2) reducing depictions of tobacco use in entertainment media, 3) instituting campaigns to discourage family and friends from providing cigarettes to young persons, 4) promoting smoke-free homes, 5) instituting comprehensive school-based programs and policies in conjunction with supportive community activities to prevent smoking initiation and encourage smoking cessation, and 6) decreasing the number of adult smokers (e.g., parents) to present more non-smoking role models.

## References

1. U.S. Department of Health and Human Services. Healthy People 2010 (conference ed., 2 vols.). Washington, DC: U.S. Department of Health and Human Services, 2000.
2. Johnston LD, O'Malley PM, Bachman JG, Schulenberg JE. Monitoring the future: national results on adolescent drug use—overview of key findings. Bethesda, Maryland: National Institute on Drug Abuse, 2004; NIH publication no. 04-5506.

3. Substance Abuse and Mental Health Services Administration. Overview of findings from the 2002 National Survey on Drug Use and Health. Rockville, Maryland: U.S. Department of Health and Human Services, 2003; DHHS publication no. (SMA) 03-3774.
4. CDC. Tobacco use among middle and high school students—United States, 2002. *MMWR* 2003;52:1096–8.
5. U.S. Department of Labor. Consumer price index—all urban consumers. U.S. city average, cigarettes. Washington, DC: U.S. Department of Labor, Bureau of Labor Statistics, 2004. Available at <http://data.bls.gov/labjava/outside.jsp?survey=cu>.
6. Farrelly MC, Healton C, Davis KC, Messeri P, Hersey JC, Haviland ML. Getting to the truth: evaluating national tobacco countermarketing campaigns. *Am J Public Health* 2002;92:901–7.
7. Federal Trade Commission. Cigarette report for 2001. Washington, DC: Federal Trade Commission, 2003. Available at <http://www.ftc.gov/os/2003/06/2001cigreport.pdf>.
8. Dalton MA, Sargent JD, Beach ML, et al. Effect of viewing smoking in movies on adolescent smoking initiation: a cohort study. *Lancet* 2003;362:281–5.
9. Kaufman P, Alt MN, Chapman CD. Dropout rates in the United States: 2000. Washington, DC: U.S. Department of Education, National Center for Education Statistics, 2001; report no. NCES 2002-114.
10. Brenner ND, Kann L, McManus T, Kinchen SA, Sundberg EC, Ross JG. Reliability of the 1999 Youth Risk Behavior Survey questionnaire. *J Adolesc Health* 2002;31:336–42.

### **Diminishing Racial Disparities in Early-Onset Neonatal Group B Streptococcal Disease — United States, 2000–2003**

Increased use of intrapartum antibiotics to prevent perinatal group B streptococcal (GBS) disease during the 1990s led to substantial declines in the incidence of GBS disease in newborns (1). Despite this success, at the end of the 1990s, early-onset GBS disease (in infants aged <7 days) continued to be a leading infectious cause of neonatal mortality in the United States, and black infants remained at higher risk than white infants (1). In 2002, CDC and the American College of Obstetricians and Gynecologists (ACOG) revised guidelines for prevention of early-onset GBS disease to recommend late prenatal screening of all pregnant women and intrapartum antibiotic prophylaxis (IAP) for GBS carriers (2,3). These guidelines were expected to result in further declines in early-onset disease (4). This report updates early-onset incidence trends since 1999 analyzed by using population-based, multistate data from the Active Bacterial Core surveillance (ABCs)/Emerging Infections Program Network. The results of the analysis indicated that 1) after a plateau in early-onset disease incidence during 1999–2002, rates declined 34% in 2003 and 2) although racial disparities in incidence persist, rates for blacks now approach the 2010 national health objective of 0.5 cases per 1,000 live births (5). Continued imple-

mentation of screening and prophylaxis guidelines by clinicians and public health practitioners should lead to further declines in racial disparities.

ABCs conducts active, laboratory-based surveillance for all cases of invasive GBS, including periodic audits to ensure completeness of case finding. A case of early-onset GBS disease was defined as isolation of GBS from a normally sterile site (e.g., blood or cerebrospinal fluid) in a neonate aged 0–6 days residing in an ABCs area. Participating areas during 2000–2003 were Connecticut, Maryland, Minnesota, and selected counties in California, Colorado (beginning in 2001), Georgia, New York, Oregon, and Tennessee, representing a population that produced 419,062 live births in 2001. Of the 2001 live-birth cohort, 73% were white, 20% were black, and 7% were of other races; 15% were of Hispanic origin. The incidence of early-onset disease was calculated by using live-birth data for 2000 and 2001 from ABCs states' vital statistics or the National Vital Statistics Report (available at [http://www.cdc.gov/nchs/data/nvsr/nvsr51/nvsr51\\_02.pdf](http://www.cdc.gov/nchs/data/nvsr/nvsr51/nvsr51_02.pdf)). Incidence for 2002 and 2003 were calculated by using 2001 live-birth data. Incidence of GBS disease from earlier surveillance years was derived from data published previously (1) using comparable methods. A total of 184 (13.2%) of 1,397 cases with missing or unspecified race data during 1996–2002 were matched with birth records to improve the completeness of race reporting. Remaining cases of unknown race (during 1996–2002, a total of 77 [5.5%] of 1,397; in 2003, a total of 21 [15.7%] of 134) were distributed on the basis of the known race distribution within each county and included in all reported rates. To assess the impact of the August 2002 guidelines, incidence in 2003 was compared with the average incidence for 2000 and 2001; 2002 was considered a transition year.

During 2000–2003, a total of 701 cases of early-onset GBS disease were reported in the surveillance areas (Table). Outcome was known for 676 (96.4%) cases; the case-fatality ratio was 6.5%. A total of 150 (21.4%) infants were born before 37 weeks' gestation; among these preterm infants, the case-fatality ratio was 22.7%.

During 1999–2001, early-onset disease incidence remained nearly constant, with an average of 0.47 cases per 1,000 live births. In 2003, the overall disease incidence was 0.32 (Figure 1), representing a 34% (95% confidence interval [CI] = 20%–46%) decline in incidence since 2000–2001. The incidence in 2003 varied geographically, from 0.53 in Tennessee to 0.14 in Oregon (Table). Rates in Georgia decreased significantly compared with the 2000–2001 baseline ( $p < 0.01$ ), and rates in Tennessee decreased marginally ( $p = 0.06$ ).

During 1999–2001, disease incidence remained stable for both black and white populations, and rates among black

a•ware: *adj*

(ə-'wâr) 1 : marked by comprehension,  
cognizance, and perception; see  
also *MMWR*.



know what matters.





**TABLE. Number and rate\* of early-onset invasive group B streptococcal disease, by year and surveillance area — Active Bacterial Core surveillance, United States, 2000–2003**

Surveillance area	2000		2001		2002		2003	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate
California	26	0.59	23	0.53	9	0.21	15	0.35
Colorado	—†	—†	11	0.31	11	0.31	10	0.28
Connecticut	12	0.28	10	0.24	11	0.26	10	0.24
Georgia	47	0.67	45	0.63	33	0.46	22	0.31
Maryland <sup>§</sup>	29	0.39	38	0.52	35	0.48	25	0.34
Minnesota	33	0.49	22	0.33	27	0.41	20	0.30
New York	9	0.36	8	0.33	6	0.25	7	0.29
Oregon	5	0.24	5	0.24	9	0.43	3	0.14
Tennessee	40	0.95	30	0.72	33	0.79	22	0.53
<b>Total</b>	<b>201</b>	<b>0.52</b>	<b>192</b>	<b>0.46</b>	<b>174</b>	<b>0.42</b>	<b>134</b>	<b>0.32</b>

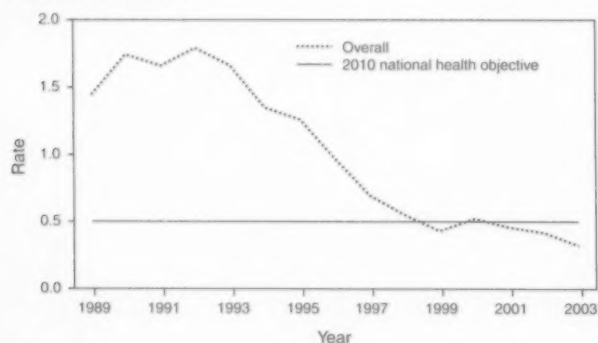
\*Per 1,000 live births.

†Colorado began surveillance July 1, 2000; incidence was not calculated for 2000.

§2001 live birth data for Maryland is from the National Vital Statistics Report (available at [http://www.cdc.gov/nchs/data/nvsr/nvsr51/nvsr51\\_02.pdf](http://www.cdc.gov/nchs/data/nvsr/nvsr51/nvsr51_02.pdf)).

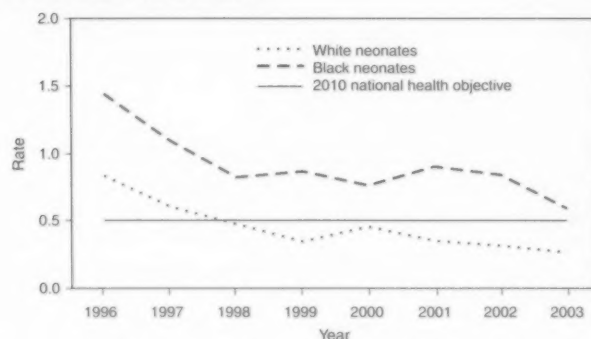
infants were approximately twice those of whites (Figure 2). In 2003, the incidence of disease was 0.26 cases per 1,000 live births among white infants, 0.59 among black infants, and 0.16 among infants of other races; the rate among those of Hispanic origin was 0.31. Compared with disease rates in 2000 and 2001, the incidence of disease in 2003 declined 34% among white infants and 30% among black infants. However, black infants remained 2.2 (95% CI = 1.6–3.2) times more likely to have early-onset GBS disease than white infants in 2003; this relative risk has not changed significantly since 1996 (Figure 2). Compared with the pre-prevention baseline rate in 1993, the difference in incidence between whites and blacks has declined 68% (i.e., by 0.78 cases per 1,000 births). In 1998, white neonates achieved the 2010 national health objective (5); preliminary data from 2003 indicate that black neonates are approaching this goal.

**FIGURE 1. Rate\* of early-onset invasive group B streptococcal disease, by year — Active Bacterial Core surveillance, United States, 1989–2003**



\* Per 1,000 live births.

**FIGURE 2. Rate\* of early-onset invasive group B streptococcal disease, by race and year — Active Bacterial Core surveillance, United States, 1996–2003**



\* Per 1,000 live births.

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**Editorial Note:** Although the incidence of early-onset GBS disease declined during the 1990s (1,2,6), disease incidence plateaued until 2002, when universal screening guidelines were issued. The rate in 2003 of 0.32 cases per 1,000 live births is the lowest ever recorded for the United States and meets the 2010 national health objective for overall incidence (5), with all of the ABCs areas at or below the target of 0.5 cases per 1,000 live births.

A 2002 review of a random sample of live births in ABCs areas estimated that, under universal screening, the overall incidence of early-onset infections would be approximately 0.3 cases per 1,000 live births (4); the data from 2003 are consistent with this prediction. These data likely underestimate the full impact of guidelines released in the latter half of 2002, because institutions following the old risk-based guide-

lines were unlikely to have completed the transition to universal screening. In addition, improved implementation of screening through optimal prenatal specimen collection and processing; improved communication between laboratories and providers; and appropriate choice of prophylactic agents, particularly for penicillin-allergic women, might lead to further declines in disease incidence. Moreover, clinical laboratories have improved in GBS isolation and processing since the 1996 guidelines; however, opportunities to improve the implementation of recommendations related to antimicrobial susceptibility testing and GBS bacteriuria were identified (7).

Although record low rates of early-onset GBS disease were recorded for black neonates in 2003, racial disparities persist. The reasons for higher rates of neonatal GBS disease among blacks are multifactorial. A key factor is substantially higher GBS colonization rates among blacks; in addition, preterm delivery is more common in blacks and increases risk for both early- and late-onset GBS disease (8). Increased GBS prevention efforts during the 1990s coincided with a 75% reduction in the difference in disease incidence between black and white infants (1). However, starting in 1999, racial disparities in early-onset disease plateaued. Declines in the rate of disease in black infants after release of the 2002 guidelines and new progress towards the 2010 national health objective might indicate that a universal screening strategy will further reduce this racial disparity.

The findings in this report are subject to at least three limitations. First, no data on the strategy providers followed are available, so trends cannot be directly attributed to particular prevention practices. Second, race data were collected from the medical record rather than self-reports. The completeness of race ascertainment was improved through the use of birth certificate data; however, 9% of cases had unknown race reported. Finally, live-birth data were not yet available for 2002 and 2003, so exact denominators for incidence calculations could not be used.

To maximize prevention, correct implementation of the screening approach is crucial. Practical tools to assist with monitoring prevention implementation have been published (9,10); additional health communication tools have been created to assist both clinicians and public health practitioners with GBS education and policy issues. These resources include a recently designed website (<http://www.cdc.gov/groupbstrep>) with entry portals for clinicians, clinical microbiologists, the general public, and state health departments. In addition, a new consumer education brochure designed to

reach black women is available free of charge by writing CDC's Respiratory Diseases Branch at 1600 Clifton Road, N.E., mailstop C-23, Atlanta, GA 30333, by faxing requests to 404-639-3970, or by ordering online at <http://www.cdc.gov/groupbstrep>.

#### Acknowledgments

This report is based in part on contributions by P Daily, MPH, California Emerging Infections Program, Oakland; J Mohle-Boetani, MD, California Dept of Health Svcs. K Gershman, MD, Colorado Dept of Public Health. JL Hadler, MD, S Petit, MPH, MZ Fraser, Emerging Infections Program, Connecticut Dept of Public Health. W Baughman, MSPH, Emerging Infections Program, Veterans Affairs Medical Center, Atlanta, Georgia. Maryland Active Bacterial Core surveillance, Johns Hopkins Bloomberg School of Public Health, Baltimore, Maryland. L Triden, B Jewell, J Rainbow, MPH, R Danila, PhD, Minnesota Dept of Health. N Spina, MPH, B Anderson, PhD, Emerging Infections Program, New York State Dept of Health. M Dragoon, A Zeigler, Multnomah County Health Dept, Portland, Oregon. W Schaffner, MD, Vanderbilt Univ School of Medicine, Nashville, Tennessee. R Facklam, PhD, TH Skoff, MS, C Whitney, MD, C Wright, Div of Bacterial and Mycotic Diseases, National Center for Infectious Diseases, CDC.

#### References

1. Schrag SJ, Zywicki S, Farley MM, et al. Group B streptococcal disease in the era of intrapartum antibiotic prophylaxis. *N Engl J Med* 2000;342:15-20.
2. CDC. Prevention of perinatal group B streptococcal disease: revised recommendations from CDC. *MMWR* 2002;51(No. RR-11).
3. American College of Obstetricians and Gynecologists, Committee on Obstetric Practice. Prevention of early-onset group B streptococcal disease in newborns [Opinion 279]. Washington, DC: American College of Obstetricians and Gynecologists, December 2002.
4. Schrag SJ, Zell ER, Lynfield R, et al. A population-based comparison of strategies to prevent early-onset group B streptococcal disease in neonates. *N Engl J Med* 2002;347:233-9.
5. U.S. Department of Health and Human Services. Healthy People 2010, 2nd ed. With Understanding and Improving Health and Objectives for Improving Health (2 vols.). Washington, DC: U.S. Department of Health and Human Services, 2000.
6. CDC. Prevention of perinatal group B streptococcal disease: a public health perspective. *MMWR* 1996;45(No. RR-7).
7. CDC. Laboratory practices for prenatal group B streptococcal screening—seven states, 2003. *MMWR* 2004;53:506-9.
8. Schrag SJ, Arnold KE, Mohle-Boetani JC, et al. Prenatal screening for infectious diseases and opportunities for prevention. *Obstet Gynecol* 2003;102:753-60.
9. Schrag SJ, Whitney C, Schuchat A. Neonatal group B streptococcal disease: how infection control teams can contribute to prevention efforts. *Infect Cont Hosp Epidemiol* 2000;21:473-83.
10. Schuchat A, Roome A, Zell E, Linardos H, Zywicki S, O'Brien KL. Integrated monitoring of a new group B streptococcal disease prevention program and other perinatal infections. *Maternal Child Health* 2002;6:107-14.

## Laboratory Practices for Prenatal Group B Streptococcal Screening — Seven States, 2003

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In the United States, group B streptococcus (GBS) is the leading cause of serious bacterial infections in newborns (1). In 1996, consensus guidelines for use of intrapartum antibiotic prophylaxis (IAP) to prevent perinatal GBS disease recommended either of two methods for identifying candidates for chemoprophylaxis: 1) late prenatal culture-based screening for GBS colonization or 2) monitoring of women intrapartum for particular risk factors associated with early-onset GBS disease (2). Evidence that culture-based screening was substantially more effective than the risk-based approach led to revised guidelines in 2002 recommending late prenatal GBS screening for all pregnant women (3,4). Although methods for isolation and identification of GBS from prenatal specimens remained the same as those recommended in 1996, the 2002 guidelines recommended that laboratories perform antimicrobial susceptibility testing on prenatal GBS isolates from women at high risk for penicillin anaphylaxis and clarified that laboratories should report the presence of any GBS in urine specimens from pregnant women. To assess laboratory adherence to recommendations in the 2002 guidelines, CDC's Active Bacterial Core surveillance (ABCs)/Emerging Infections Program Network surveyed clinical laboratories about prenatal culture-processing practices in 2003. This report summarizes the results of that survey, which indicated that, although adherence to GBS isolation procedures was high, opportunities exist to improve implementation of recommendations related to antimicrobial susceptibility testing and GBS bacteriuria.

During June–August 2003, a questionnaire was either mailed or administered over the telephone to personnel in all clinical laboratories in Georgia ( $n = 95$  laboratories) and Connecticut ( $n = 32$ ) and in selected laboratories in Tennessee ( $n = 40$ ), New York ( $n = 34$ ), California ( $n = 26$ ), Colorado ( $n = 15$ ), and Oregon ( $n = 11$ ). Responses were received from 211 (83%) of 253 laboratories surveyed. The survey included questions regarding the anatomical source of specimens, requisition form requirements, media used for culture, antimicrobial susceptibility testing practices, and the threshold for reporting GBS in urine specimens. One set of responses was received from each laboratory; the response rate varied for each question. Certain response categories were not mutually exclusive. A total of 28 laboratories that did not perform onsite GBS testing were excluded from the analysis of questions regarding culture processing.

Vaginal/rectal specimens were accepted for prenatal GBS screening in 195 (94%) of 207 laboratories; 12 (6%) laboratories accepted cervical specimens. These latter laboratories



were affiliated primarily with small or rural hospitals. A total of 192 (98%) of 195 laboratories requested information on patient sex, and 194 (99%) requested information on patient age on requisition forms; fewer collected information on pregnancy status (33%) or penicillin allergy (22%).

Of the 211 laboratories that responded, 183 (87%) processed GBS specimens onsite; the 28 laboratories that did not do onsite testing sent specimens to a reference laboratory, were located in hospitals that do not offer obstetric or gynecological services, or were small laboratories. A total of 163 (89%) of 183 laboratories that processed GBS specimens used the recommended selective enrichment broth media for GBS isolation (Table). Laboratories that did not use selective enrichment broth were affiliated with rural hospitals. A total of 100 (55%) of 182 laboratories performed susceptibility testing on GBS isolates only if requested by the provider; 27 (15%) per-

formed susceptibility testing on all isolates, and 41 (23%) performed susceptibility testing on all isolates from women with a reported penicillin allergy. Five (3%) laboratories received few specimens but had the capacity to perform testing onsite or through a reference laboratory; 12 (7%) laboratories did not perform susceptibility testing at all. Among the 41 laboratories that performed susceptibility tests on the basis of a patient's penicillin allergy status, 27 (66%) requested allergy information on requisition forms. Among 57 laboratories that provided additional information about susceptibility testing, 46 (81%) reported susceptibilities for both clindamycin and erythromycin.

Among 180 laboratories that receive prenatal urine specimens, 121 (67%) reported the presence of GBS in any level from urine specimens in women of childbearing age; 51 (28%) reported GBS growth from urine only if the bacterial count was  $\geq 10^4$  or  $\geq 10^5$  colony forming units (cfu)/mL.

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**Editorial Note:** The recommendation that universal prenatal screenings (i.e., approximately 4 million per year) be performed for GBS colonization presents U.S. clinical laboratories with new challenges. Certain laboratories might be processing GBS specimens for the first time, whereas others might experience an increase in specimen volume. All laboratories should develop policies and procedures (Box) to address the new recommendations related to antimicrobial susceptibility testing and reporting of GBS bacteriuria. Certain challenges can be addressed within the laboratory; others might require improved communication with prenatal-care providers.

Use of vaginal/rectal swabs improves GBS isolation by 40%, compared with use of vaginal specimens alone; cervical cultures yield 40% fewer positive cultures than single vaginal swabs (5,6). Laboratories can inform providers who submit cervical swabs or vaginal-only swabs of current recommendations that they submit combined vaginal/rectal swabs. In addition, use of selective broth media increases GBS isolation by 50% when compared with nonselective media (7,8). Although, in this report, the proportion of laboratories using

**TABLE. Characteristics of laboratory techniques for processing prenatal group B streptococcus (GBS) specimens, susceptibility testing, and thresholds for reporting GBS — Active Bacterial Core surveillance/Emerging Infections Program Network, seven states\*, 2003**

Characteristic	Total respondents	No.	(%)
<b>Broth media</b>			
Selective enrichment†	183	163	(89)
Lim broth	183	134	(73)
Todd-Hewitt plus gentamicin/nalidixic acid	183	29	(15)
Other‡	183	1	(1)
Unknown	183	1	(1)
Nonenrichment	183	12	(7)
Nonselective enrichment	183	8	(4)
<b>Antimicrobial susceptibilities reported</b>			
Clindamycin and erythromycin	57	46	(81)
Clindamycin	57	4	(7)
Erythromycin	57	2	(4)
Neither¶	57	5	(8)
<b>Susceptibility methods†</b>			
Microscan broth microdilution	57	20	(35)
Kirby-Bauer disk diffusion	57	18	(32)
Vitek system	57	17	(30)
E-test	57	8	(14)
Minimum inhibitory concentration broth dilution	57	1	(2)
<b>Will report GBS-positive urine specimens in women of childbearing age if</b>			
Any GBS is present	180	121	(67)
Colony count $\geq 10^5$ colony forming units (cfu)/mL	180	31	(17)
Colony count $\geq 10^4$ cfu/mL	180	20	(11)
Other**	180	2	(1)
Missing	180	6	(4)

\* California, Connecticut, Colorado, Georgia, New York, Oregon, and Tennessee.

† Total is greater than number who responded because categories are not mutually exclusive.

‡ Includes Northeast Laboratories' GBS broth.

¶ Includes penicillin, ampicillin, ceftriaxone, cefuroxime, ofloxacin, levofloxacin, vancomycin, and clinician's request.

\*\* Includes on request and  $\geq 10^6$  cfu/mL if apyuric or  $>100$  cfu/mL if pyuric.

**BOX. Recommended laboratory procedures for prenatal group B streptococcal (GBS) screening\***

- Vaginal/rectal swabs should be collected instead of vaginal or rectal specimens alone; cervical specimens are not recommended.
- Selective broth medium should be used to maximize GBS isolation.
- If feasible, GBS isolates from women at high risk for penicillin anaphylaxis should be tested for susceptibility to both clindamycin and erythromycin.
- Any concentration of GBS isolated from prenatal urine specimens should be reported to a provider. Even a concentration below the standard for a urinary tract infection is considered an indication for intrapartum prophylaxis.
- Including pregnancy status and penicillin allergy status on laboratory requisition forms might help laboratories implement prenatal GBS-prevention recommendations.

\* For more detailed recommendations, see Box 1 in the 2002 guidelines (3).

selective broth was much higher than in a survey after release of the 1996 guidelines (9), 11% of laboratories still were not using a selective broth medium. Because the majority of these laboratories were affiliated with small or rural hospitals, outreach activities (e.g., mailing guidelines and reporting survey results by telephone or mail) to these facilities might improve prevention implementation.

GBS isolates remain universally susceptible to penicillin and ampicillin, the first-line agents for IAP. However, emerging resistance to clindamycin and erythromycin led to the recommendation of new prophylactic agents for women with penicillin allergy. Women at low risk for anaphylaxis should receive cefazolin; if feasible, GBS isolates from women at high risk for anaphylaxis should be tested for susceptibility to both clindamycin and erythromycin. Vancomycin is reserved for women at high risk for anaphylaxis with a clindamycin- or erythromycin-resistant isolate or when the susceptibility is unknown. Because susceptibility testing can guide the appropriate selection of a prophylactic agent, laboratories with the ability to perform susceptibility testing can play a key role in preventing overuse of vancomycin for GBS prophylaxis.

Recommendations for treatment of women with GBS colonization who are allergic to penicillin pose challenges for clinicians and laboratories. Providers must obtain detailed penicillin allergy histories to assess whether patients are at low or high risk for anaphylaxis. Clinicians and laboratories must then establish a system for flagging which prenatal specimens require susceptibility testing. In this survey, laboratory requi-

sition forms rarely included information on a patient's penicillin allergy. Instead, the majority of laboratories relied on providers to indicate the need for susceptibility testing. Certain laboratories opted to perform susceptibility testing on all prenatal GBS isolates, which is a more costly strategy but one that ensures test results are available for women allergic to penicillin. Seven percent of laboratories never performed susceptibility testing and might not have been aware of the 2002 revised guidelines. In addition, among laboratories that provided details on susceptibility testing, 19% did not report results for both clindamycin and erythromycin, highlighting an additional need for education on this issue.

The presence of GBS bacteriuria in any concentration in a pregnant woman indicates the need for IAP because it is associated with increased risk for neonatal GBS disease. However, 17% of laboratories reported GBS from urine only if the bacterial count was  $\geq 10^5$  cfu/mL, the standard for urinary tract infections (10). Unless laboratories have a system for identifying which urine specimens come from pregnant women, low levels of GBS bacteriuria might go unreported. Only a third of laboratories in this survey included pregnancy status on requisition forms. Because most requisition forms include information on age and sex, certain laboratories might decide to report any GBS growth from urine from women of child-bearing age. Improved strategies for communication of pregnancy status for urine specimens might reduce missed opportunities for detecting GBS bacteriuria during pregnancy.

The findings in this report are subject to at least two limitations. First, as part of the ABCs network, laboratories surveyed might have a heightened awareness of perinatal GBS prevention and might have received more education regarding laboratory practices; therefore, these results might overestimate national adherence to GBS-prevention recommendations. Second, methods of survey administration differed among ABCs sites, resulting in varying response rates for different questions.

CDC offers information for clinical microbiologists (e.g., instructional photo gallery and slide sets), health-care providers, state health departments, and pregnant women at <http://www.cdc.gov/groupbstrep>. Copies of GBS prevention guidelines and health communication materials can be ordered from this website or from CDC's Respiratory Diseases Branch, Division of Bacterial and Mycotic Diseases, National Center for Infectious Diseases, Mailstop C-23, 1600 Clifton Road, N.E., Atlanta, GA 30333.

**Acknowledgments**

The findings in this report are based in part on contributions by K Gershman, MD, Colorado Dept of Public Health. MZ Fraser, S Petit, MPH, Emerging Infections Program; J Hadler, MD, Con-

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## References

1. Schuchat A. Group B streptococcus. *Lancet* 1999;353:51-6.
2. CDC. Prevention of perinatal group B streptococcal disease: a public health perspective. *MMWR* 1996;45(No. RR-7).
3. CDC. Prevention of perinatal group B streptococcal disease: revised guidelines from CDC. *MMWR* 2002;51(No. RR-11).
4. American College of Obstetricians and Gynecologists, Committee on Obstetric Practice. Prevention of early-onset group B streptococcal disease in newborns [Opinion 279]. Washington, DC: American College of Obstetricians and Gynecologists, December 2002.
5. Badri MS, Zawaneh S, Cruz AC, et al. Rectal colonization with group B streptococcus: relation to vaginal colonization of pregnant women. *J Infect Dis* 1977;135:308-12.
6. Philipson EH, Palermino DA, Robinson A. Enhanced antenatal detection of group B streptococcus colonization. *Obstet Gynecol* 1995;85:437-9.
7. Altaie SS, Dryja D. Detection of group B streptococcus: comparison of solid and liquid culture media with and without selective antibiotics. *Diagn Microbiol Infect Dis* 1994;18:141-4.
8. Baker CJ, Clark DJ, Barrett FE. Selective broth medium for isolation of group B streptococcus. *Appl Microbiol* 1973;26:884-5.
9. CDC. Laboratory practices for prenatal group B streptococcal screening and reporting—Connecticut, Georgia, and Minnesota, 1997-1998. *MMWR* 1999;48:426-8.
10. Urinary tract infections. In: Fauci AS, Braunwald E, Isselbacher KJ, et al., eds. *Harrison's Principles of Internal Medicine* (Companion Handbook), 14th ed. New York, New York: McGraw-Hill, 1998:800-3.

## Brief Report

### Nontuberculous Mycobacterial Infections After Cosmetic Surgery — Santo Domingo, Dominican Republic, 2003-2004

Rapidly growing mycobacteria have been associated with postoperative infections in patients undergoing cosmetic surgery procedures (1,2). In April 2004, CDC received reports of infections caused by rapidly growing mycobacteria in patients who had undergone cosmetic surgery procedures in Santo Domingo, Dominican Republic (DR). CDC, along with state and local health departments, is investigating additional cases identified by passive surveillance (i.e., solicitation of reports from clinicians by using electronic networks) and, in some areas, active surveillance (i.e., review of laboratory reports).

A total of 12 cases, all laboratory confirmed, have been reported from residents of New York (five), Massachusetts

(two), North Carolina (two), Rhode Island (two), and Puerto Rico (one). Definitive testing at CDC has determined that all the cases resulted from infection with *Mycobacterium abscessus*. The patients underwent procedures in multiple surgical centers in Santo Domingo during May 2003–February 2004. Eleven of the 12 patients were interviewed. All were women; median age was 32 years (range: 19–59 years). Surgical procedures consisted of one or more of the following: abdominoplasty (i.e., “tummy tuck”) (10 patients), liposuction (five), breast lift (four), breast reduction (four), and breast implant (one). Symptoms of infection began a median of 5 weeks after surgery (range: 1–20 weeks) and included subcutaneous or deep-tissue abscesses requiring incision, drainage, and antibiotic therapy in all patients; nine patients were hospitalized. Molecular typing using pulsed-field gel electrophoresis and randomly amplified polymorphic DNA polymerase chain reaction confirmed that *M. abscessus* isolates from seven of 12 specimens were indistinguishable. Organisms with this common genetic pattern were recovered from patients who had surgery performed during October–December 2003 in the same surgical center in Santo Domingo.

The source and magnitude of this cluster are not known; public health authorities in DR have initiated an onsite investigation. Infection with rapidly growing, nontuberculous mycobacteria should be considered in patients who have undergone cosmetic surgery procedures in DR and who subsequently have surgical-site infections that fail to respond to standard therapy. Cases of mycobacterial subcutaneous infections after cosmetic surgery procedures undergone since May 2003 in DR should be reported through state and local health departments to CDC, telephone 800-893-0485.

**Reported by:** State and local health departments. Div of Healthcare Quality Promotion, National Center for Infectious Diseases; Div of TB Elimination, National Center for HIV, STDs, and TB Prevention; C Estivariz, MD, EIS Officer, CDC.

## References

1. CDC. *Mycobacterium chelonae* infections associated with face lifts—New Jersey, 2002–2003. *MMWR* 2004;53:192-4.
2. CDC. Rapidly growing mycobacterial infection following liposuction and liposculpture—Caracas, Venezuela, 1996–1998. *MMWR* 1998; 47:1065-7.

## Brief Report

### Lead Poisoning from Ingestion of a Toy Necklace — Oregon, 2003

Although ingestion of dust from lead-based paint is the most common source of lead exposure among children in the United States (1), lead also can be present in unsuspected objects. Ingestion of these objects can result in elevated blood lead

levels (BLLs). This report describes an investigation by the Deschutes County Health Department and the Oregon Department of Human Services of lead poisoning in a boy who swallowed a medallion pendant from a necklace sold in a toy vending machine. The investigation resulted in a nationwide recall in September 2003 of the implicated toy necklace. Clinicians and caregivers should consider lead poisoning in any child who ingests, or puts in his mouth, a metal object. Cases of lead poisoning should be reported immediately to public health authorities to prevent other children from being exposed to the same sources of lead.

In July 2003, a boy aged 4 years was taken to a physician in Oregon after several days of abdominal cramping, vomiting, and diarrhea without fever. His symptoms resolved until 1–2 weeks later when he had another bout of vomiting and abdominal pain. He was returned to his physician, and his condition was diagnosed as probable viral syndrome and anemia of undetermined etiology.

Two days later he was brought to the emergency department with worsening symptoms, including constipation and inability to eat or sleep because of his abdominal pain. An abdominal radiograph showed a metallic object in the stomach with no evidence of obstruction; repeat laboratory studies showed a persistent normocytic anemia. Initially, the object

was believed likely to pass on its own; however, on the next day, an abdominal computerized tomography showed the object more superiorly located. Endoscopy was performed, resulting in retrieval of a medallion pendant (along with a quarter) from the boy's stomach.

Three days later, the boy returned with edema of the left cheek and gingiva, suggesting either a dental abscess or excessive biting of the cheek. Concern that the cheek bite might have been caused by a seizure prompted testing of his BLL, which was 123  $\mu\text{g}/\text{dL}$  (CDC's level of concern =  $\geq 10 \mu\text{g}/\text{dL}$ ). The boy was admitted to the pediatric intensive care unit for intravenous chelation therapy. No evidence of encephalopathy was found; a sleep electroencephalogram was normal. The boy was treated with dimercaprol (i.e., BAL) followed by calcium disodium versenate (i.e., EDTA), and his BLL decreased to 57  $\mu\text{g}/\text{dL}$ . He was switched to oral succimer (i.e., DMSA), but received a repeat course of EDTA when his BLL increased to 69  $\mu\text{g}/\text{dL}$ . After three courses of succimer, his BLL was <40  $\mu\text{g}/\text{dL}$ . The boy's zinc protoporphyrin level peaked at 556  $\text{mM}/\text{M}$  (normal: 25–65  $\text{mM}/\text{M}$ ). Peripheral blood smear showed basophilic stippling. Subsequently, neurodevelopmental, cognitive, and speech therapy evaluations of the boy all showed appropriate development.

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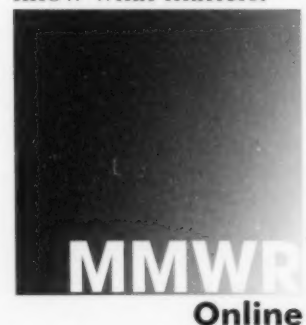
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An environmental investigation of the boy's home, which was built in 1996, did not reveal any additional sources of lead exposure. A sibling, aged 6 years, had a BLL of  $<5 \mu\text{g/dL}$ .

The medallion retrieved from the boy's stomach was reportedly purchased from a toy vending machine in Oregon, approximately 3 weeks before it was retrieved. The state environmental quality lab found the medallion's contents to be 38.8% lead (388,000 mg/kg), 3.6% antimony, and 0.5% tin. Similar medallions purchased from toy vending machines in other areas of Oregon were found to have similar high proportions of lead (44% and 37%). These medallions are round, measuring approximately 7/8 of an inch in diameter, gray in color, with a symbol on one side (Figure). State health officials notified the U.S. Consumer Product Safety Commission; a national voluntary recall\* was announced on September 10, 2003, of approximately 1.4 million of the metal toy necklaces. A distributor of the medallions reported that they had been manufactured in India and distributed throughout the United States. Oregon health officials cautioned that more of the medallions might still be sold in vending machines in the state (2).

\* Available at <http://www.cpsc.gov/cpscpub/prerel/prhtml03/03178.html>.

**FIGURE. Medallions from recalled toy necklaces that were sold in vending machines in Oregon and linked to lead poisoning**



Photo/Oregon Department of Human Services

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#### Acknowledgments

WL Pickner, Oregon Childhood Lead Poisoning Prevention Program, Oregon Dept of Human Svcs, Health Svcs; Deschutes County Health Dept, Bend; A Jaffe, MD, Oregon Health and Science Univ, Portland, Oregon. MW Shannon, MD, Children's Hospital, Boston, Massachusetts.

#### References

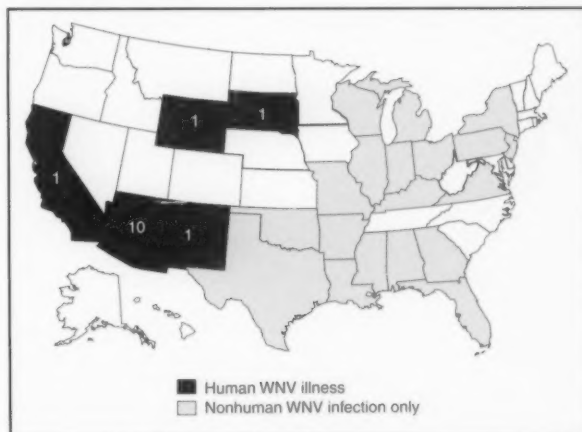
1. CDC. Surveillance for elevated blood lead levels among children—United States, 1997–2001. In: CDC Surveillance Summaries (September 12). MMWR 2003;52(No. SS-10).
2. Office of Public Affairs, Oregon Department of Human Services. Oregon lead poisoning case leads to national recall. Portland, Oregon: Oregon Department of Human Services, 2003. Available at <http://www.dhs.state.or.us/news/2003news/2003-0923.html>.

### West Nile Virus Activity — United States, June 9–15, 2004

As of June 15, a total of 14 human cases of West Nile virus (WNV) illness had been reported to CDC through ArboNET from five states. Ten cases were reported from Arizona, and one case each from California, New Mexico, South Dakota, and Wyoming (Figure). Ten (71%) of the cases occurred in males; the median age of patients was 53 years (range: 9–69 years), and dates of illness onset ranged from May 8 to June 1.

A total of 12 presumptive West Nile viremic blood donors have been reported to ArboNET. Of these, 11 were reported from Arizona and one was reported from New Mexico. Of the 12 donors reported to ArboNET, one person aged 69 years

**FIGURE. Areas reporting West Nile virus (WNV) activity — United States, 2004\***



\* As of 3 a.m., Mountain Standard Time, June 15, 2004.

subsequently had neuroinvasive disease, and two persons aged 22 and 52 years had West Nile fever.

In addition, during 2004, a total of 471 dead corvids and 55 other dead birds with WNV infection have been reported from 18 states, and 16 WNV infections in horses have been reported from six states (Alabama, Arizona, Missouri, Oklahoma, Texas, and Virginia). WNV seroconversions have been reported in 64 sentinel chicken flocks from four states (Arizona, California, Florida, and Louisiana), and 88 WNV-positive mosquito pools have been reported from eight states (Arizona, California, Illinois, Indiana, Louisiana, Missouri, Pennsylvania, and Texas).

Additional information about national WNV activity is available from CDC at <http://www.cdc.gov/ncidod/dvbid/westnile/index.htm> and at <http://westnilemaps.usgs.gov>.

#### Notice to Readers

### **Interactive Broadcast and Webcast on Mass Antibiotic Dispensing**

CDC will present "Mass Antibiotic Dispensing: A Primer," a live, interactive satellite broadcast and webcast, on June 24, 2004, from 1:00–2:30 p.m., EDT. The broadcast will provide information principally to help state and local Strategic National Stockpile (SNS) planners develop plans for mass antibiotic dispensing in the event of biologic terrorism. SNS experts will discuss key factors that impact mass dispensing. A state planner will detail how policy and planning considerations impact developing state, regional, and local dispensing plans. A question-and-answer session will enable participants to pose questions to panelists through toll-free telephone, fax, or TTY lines.

Additional information about content, registration, continuing education credit, and accessing the live broadcast/webcast is available at <http://www.phppo.cdc.gov/phtn/antibiotic>. Information about registration also is available from CDC, telephone 800-418-7246 or 404-639-1292.

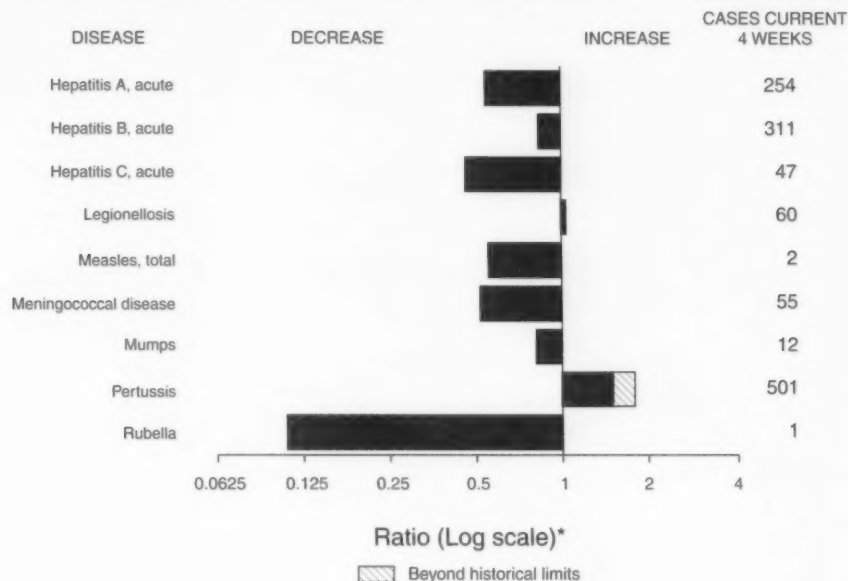
#### Notice to Readers

### ***Escherichia coli* O157:H7 Outbreak in Foodborne Disease Computer-Based Case Study Series**

CDC announces the release of a new computer-based case study, "*E. coli* O157:H7 Infection in Michigan." Based on a real-life disease outbreak investigation, this self-instructional, interactive exercise teaches public health practitioners epidemiologic skills and allows them to practice these skills. In the case study, students work through the *E. coli* O157:H7 investigation from beginning to end. Students can select learning activities focusing on particular areas of interest or those most relevant to their job activities.

The new case study is the second in the Foodborne Disease Outbreak Investigation Case Study Series. The first computer-based case study, "Botulism in Argentina," was released in 2002 and received the American Society for Training and Development's E-Learning Courseware Certification and the 2002 Outstanding Practice Award from the Design and Development Division of the Association for Educational Communications and Technology.

The Foodborne Disease Outbreak Investigation Series is designed for students with knowledge of basic epidemiologic and public health concepts. Each case study was developed in collaboration with the original investigators from CDC and the Council of State and Territorial Epidemiologists. Both "*E. coli* O157:H7 Infection in Michigan" and "Botulism in Argentina" can be downloaded free of charge at <http://www.phppo.cdc.gov/phtn/casestudies> or purchased on CD-ROM through the Public Health Training Network. Continuing education credit is offered to those who complete the case studies.

**FIGURE I. Selected notifiable disease reports, United States, comparison of provisional 4-week totals June 12, 2004, with historical data**

\* Ratio of current 4-week total to mean of 15 4-week totals (from previous, comparable, and subsequent 4-week periods for the past 5 years). The point where the hatched area begins is based on the mean and two standard deviations of these 4-week totals.

**TABLE I. Summary of provisional cases of selected notifiable diseases, United States, cumulative, week ending June 12, 2004 (23rd Week)\***

	Cum. 2004	Cum. 2003		Cum. 2004	Cum. 2003
Anthrax	-	-	Hemolytic uremic syndrome, postdiarrheal†	32	48
Botulism:	-	-	HIV infection, pediatric†§	78	102
foodborne	7	7	Measles, total	15¶	24**
infant	26	31	Mumps	82	106
other (wound & unspecified)	3	9	Plague	-	-
Brucellosis†	41	40	Poliomyelitis, paralytic	-	-
Chancroid	14	26	Psittacosis†	3	5
Cholera	2	1	Q fever†	21	33
Cyclosporiasis†	53	22	Rabies, human	-	-
Diphtheria	-	-	Rubella	12	4
Ehrlichiosis:	-	-	Rubella, congenital syndrome	-	1
human granulocytic (HGE)†	33	37	SARS-associated coronavirus disease† ††	-	7
human monocytic (HME)†	24	33	Smallpox† §§	-	NA
human, other and unspecified	-	5	<i>Staphylococcus aureus</i> :	-	-
Encephalitis/Meningitis:	-	-	Vancomycin-intermediate (VISA)† §§	4	NA
California serogroup viral†	-	-	Vancomycin-resistant (VRSA)† §§	1	1
eastern equine†	-	1	Streptococcal toxic-shock syndrome†	46	100
Powassan†	-	-	Tetanus	7	3
St. Louis†	-	3	Toxic-shock syndrome	48	62
western equine†	-	-	Trichinosis	3	-
Hansen disease (leprosy)†	34	35	Tularemia†	18	11
Hantavirus pulmonary syndrome†	6	11	Yellow fever	-	-

-: No reported cases.

\* Incidence data for reporting years 2003 and 2004 are provisional and cumulative (year-to-date).

† Not notifiable in all states.

§ Updated monthly from reports to the Division of HIV/AIDS Prevention — Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention.

¶ Last update May 23, 2004.

¶ Of 15 cases reported, 10 were indigenous, and five were imported from another country.

\*\* Of 24 cases reported, 17 were indigenous, and seven were imported from another country.

†† Updated weekly from reports to the Division of Viral and Rickettsial Diseases, National Center for Infectious Diseases (notifiable as of July 2003).

§§ Not previously notifiable.

TABLE II. Provisional cases of selected notifiable diseases, United States, weeks ending June 12, 2004, and June 7, 2003 (23rd Week)\*

Reporting area	AIDS		Chlamydia†		Coccidioidomycosis		Cryptosporidiosis		Encephalitis/Meningitis West Nile	
	Cum. 2004*	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003
UNITED STATES	17,011	19,186	360,204	378,468	2,136	1,405	958	855	1	1
NEW ENGLAND	569	655	12,485	12,150	-	-	57	59	-	-
Maine	5	27	719	857	N	N	12	5	-	-
N.H.	23	15	705	690	-	-	14	9	-	-
Vt.	13	6	445	449	-	-	6	9	-	-
Mass.	150	277	6,067	4,593	-	-	16	24	-	-
R.I.	66	50	1,505	1,421	-	-	1	9	-	-
Conn.	312	280	3,044	4,140	N	N	8	3	-	-
MID. ATLANTIC	3,912	4,069	47,493	45,743	-	-	155	127	-	-
Upstate N.Y.	453	267	9,804	8,338	N	N	38	29	-	-
N.Y. City	2,154	1,974	13,374	15,283	-	-	36	47	-	-
N.J.	675	783	5,633	6,675	-	-	10	8	-	-
Pa.	630	1,045	18,682	15,447	N	N	71	43	-	-
E.N. CENTRAL	1,455	1,987	62,122	68,982	5	3	223	206	-	-
Ohio	237	302	16,636	18,271	-	-	59	28	-	-
Ind.	166	280	7,979	7,552	N	N	30	20	-	-
Ill.	700	960	15,135	21,585	-	-	13	35	-	-
Mich.	269	363	16,434	14,015	5	3	50	37	-	-
Wis.	83	102	5,938	7,559	-	-	71	86	-	-
W.N. CENTRAL	331	360	20,280	21,938	4	2	119	81	-	-
Minn.	81	73	3,779	4,776	N	N	46	37	-	-
Iowa	21	41	1,087	2,333	N	N	15	13	-	-
Mo.	135	180	8,258	7,960	3	1	19	7	-	-
N. Dak.	12	1	652	650	N	N	4	3	-	-
S. Dak.	5	6	1,115	1,071	-	-	16	16	-	-
Nebr.†	18	24	2,212	1,980	1	1	7	3	-	-
Kans.	59	35	3,177	3,168	N	N	12	2	-	-
S. ATLANTIC	5,282	5,392	67,283	71,436	-	2	185	115	-	-
Del.	78	105	1,290	2,774	N	N	-	1	-	-
Md.	601	555	8,022	7,235	-	2	9	8	-	-
D.C.	308	595	1,508	1,461	-	-	2	1	-	-
Va.	288	477	9,545	8,241	-	-	23	11	-	-
W. Va.	30	41	1,180	1,106	N	N	2	2	-	-
N.C.	305	565	12,674	11,539	N	N	34	15	-	-
S.C.†	329	326	6,788	5,837	-	-	7	2	-	-
Ga.	782	736	8,249	14,913	-	-	53	42	-	-
Fla.	2,561	1,992	18,027	18,330	N	N	55	33	-	-
E.S. CENTRAL	782	836	23,522	24,419	2	1	42	52	-	-
Ky.	71	78	2,423	3,609	N	N	13	10	-	-
Tenn.†	326	373	9,892	8,562	N	N	12	18	-	-
Ala.	208	185	4,692	6,521	-	-	10	21	-	-
Miss.	177	200	6,515	5,727	2	1	7	3	-	-
W.S. CENTRAL	2,047	2,084	47,476	47,206	2	-	24	20	-	1
Ark.	87	63	3,415	3,155	1	-	8	3	-	-
La.	346	365	11,054	8,889	1	-	-	1	-	-
Okla.	90	91	4,747	4,828	N	N	8	4	-	-
Tex.	1,524	1,565	28,260	30,334	-	-	8	12	-	1
MOUNTAIN	571	717	18,012	22,372	1,403	938	51	39	1	-
Mont.	-	10	921	985	N	N	10	8	-	-
Idaho	3	13	1,310	1,082	N	N	4	7	-	-
Wyo.	6	5	480	449	-	-	2	1	-	-
Colo.	98	157	3,411	5,714	N	N	24	8	-	-
N. Mex.	91	51	2,298	3,313	9	3	2	2	-	-
Ariz.	208	337	6,194	6,584	1,355	915	7	2	1	-
Utah	34	32	1,486	1,623	12	3	1	8	-	-
Nev.	131	112	1,912	2,622	27	17	1	3	-	-
PACIFIC	2,062	3,086	61,531	64,222	720	459	102	156	-	-
Wash.	165	211	7,681	6,862	N	N	9	14	-	-
Oreg.	111	126	2,069	3,368	-	-	13	15	-	-
Calif.	1,731	2,691	49,401	49,931	720	459	79	127	-	-
Alaska	14	12	1,629	1,684	-	-	-	-	-	-
Hawaii	41	46	751	2,377	-	-	1	-	-	-
Guam	1	1	-	329	-	-	-	-	-	-
P.R.	209	514	1,002	1,001	N	N	N	N	-	-
V.I.	5	15	143	141	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	2	U	32	U	-	U	-	U	-	U

N: Not notifiable. U: Unavailable. -: No reported cases. C.N.M.I.: Commonwealth of Northern Mariana Islands.

\* Incidence data for reporting years 2003 and 2004 are provisional and cumulative (year-to-date).

† Chlamydia refers to genital infections caused by *C. trachomatis*.

‡ Updated monthly from reports to the Division of HIV/AIDS Prevention — Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention. Last update May 30, 2004.

§ Contains data reported through National Electronic Disease Surveillance System (NEDSS).



TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending June 12, 2004, and June 7, 2003 (23rd Week)\*

Reporting area	<i>Escherichia coli</i> , Enterohemorrhagic (EHEC)						Giardiasis		Gonorrhea	
	O157:H7		Shiga toxin positive, serogroup non-O157		Shiga toxin positive, not serogrouped		Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003
	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003				
UNITED STATES	515	532	74	75	54	50	6,207	6,740	124,606	141,034
NEW ENGLAND	39	41	20	13	9	2	589	487	2,918	3,017
Maine	1	4	-	-	-	-	60	51	106	97
N.H.	6	7	4	1	-	-	15	20	56	51
Vt.	-	2	-	-	-	-	46	36	36	38
Mass.	14	10	2	5	9	2	285	235	1,387	1,129
R.I.	5	1	-	-	-	-	50	46	396	426
Conn.	13	17	14	7	-	-	133	99	937	1,276
MID. ATLANTIC	50	56	5	6	13	11	1,426	1,423	14,990	17,944
Upstate N.Y.	18	20	2	3	5	5	471	351	3,203	3,180
N.Y. City	6	3	-	-	-	-	436	516	4,255	5,859
N.J.	8	6	1	-	4	-	138	201	2,218	3,988
Pa.	18	27	2	3	4	6	381	355	5,314	4,917
E.N. CENTRAL	93	139	14	16	6	8	765	1,218	24,879	29,814
Ohio	21	34	3	9	6	8	313	347	7,926	9,393
Ind.	9	17	-	-	-	-	-	-	2,721	2,813
Ill.	20	23	-	1	-	-	84	369	6,361	9,243
Mich.	20	25	2	-	-	-	237	281	6,328	5,777
Wis.	23	40	9	6	-	-	131	221	1,543	2,588
W.N. CENTRAL	94	76	11	10	11	8	733	663	6,638	7,266
Minn.	28	28	5	7	2	-	260	232	1,444	1,166
Iowa	22	11	-	-	-	1	103	90	160	521
Mo.	17	23	6	1	4	1	190	199	3,336	3,706
N. Dak.	2	1	-	1	3	1	11	16	56	30
S. Dak.	3	3	-	-	-	-	28	20	118	80
Nebr.	12	5	-	1	-	-	56	53	439	636
Kans.	10	5	-	-	2	6	85	53	1,085	1,127
S. ATLANTIC	52	44	15	18	7	12	965	1,001	29,699	34,712
Del.	-	-	N	N	N	N	21	15	413	1,042
Md.	11	1	1	-	1	1	40	51	3,462	3,318
D.C.	1	1	-	-	-	-	25	17	1,034	1,070
Va.	5	17	6	3	-	-	158	117	3,853	3,821
W. Va.	1	1	-	-	-	-	12	14	361	366
N.C.	-	-	4	-	-	11	N	N	6,469	6,495
S.C.	3	-	-	-	-	-	24	56	3,125	3,325
Ga.	15	8	2	2	-	-	239	324	3,573	7,220
Fla.	16	16	2	13	6	-	446	407	7,409	8,055
E.S. CENTRAL	27	24	1	-	7	4	141	139	9,985	11,831
Ky.	10	8	1	-	4	4	N	N	1,038	1,533
Tenn.	4	11	-	-	3	-	69	60	3,502	3,466
Ala.	7	3	-	-	-	-	72	79	2,780	3,927
Miss.	6	2	-	-	-	-	-	-	2,665	2,905
W.S. CENTRAL	30	22	1	2	1	2	110	113	17,648	18,924
Ark.	7	2	-	-	-	-	50	61	1,645	1,688
La.	1	1	-	-	-	-	14	8	4,968	4,996
Okla.	4	3	-	-	-	-	46	44	1,984	1,830
Tex.	18	16	1	2	1	2	-	-	9,051	10,410
MOUNTAIN	49	54	6	8	-	3	505	527	4,299	4,686
Mont.	2	2	-	-	-	-	15	28	35	55
Idaho	14	13	3	4	-	-	69	62	35	35
Wyo.	-	1	1	-	-	-	7	7	25	21
Colo.	8	16	1	1	-	3	155	156	1,172	1,300
N. Mex.	4	1	-	3	-	-	26	23	267	546
Ariz.	7	11	N	N	N	N	80	86	1,721	1,714
Utah	8	7	-	-	-	-	114	113	213	151
Nev.	6	3	1	-	-	-	39	52	831	864
PACIFIC	81	76	1	2	-	-	973	1,169	13,550	12,840
Wash.	27	22	-	1	-	-	114	108	1,160	1,263
Oreg.	11	13	1	1	-	-	170	148	265	440
Calif.	36	40	-	-	-	-	627	836	11,692	10,429
Alaska	1	1	-	-	-	-	25	36	263	236
Hawaii	6	-	-	-	-	-	37	41	170	472
Guam	N	N	-	-	-	-	-	-	-	35
P.R.	-	1	-	-	-	-	10	70	91	115
V.I.	-	-	-	-	-	-	-	-	49	39
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	-	U	3	U

N: Not notifiable. U: Unavailable. -: No reported cases.  
 \* Incidence data for reporting years 2003 and 2004 are provisional and cumulative (year-to-date).

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending June 12, 2004, and June 7, 2003 (23rd Week)\*

Reporting area	Haemophilus influenzae, invasive								Hepatitis (viral, acute), by type	
	All ages		Age <5 years						A	
	All serotypes		Serotype b		Non-serotype b		Unknown serotype			
	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003
UNITED STATES	887	866	9	11	47	63	97	104	2,363	2,737
NEW ENGLAND	82	62	1	1	4	5	3	3	409	119
Maine	7	2	-	-	-	-	-	1	8	3
N.H.	12	6	-	-	2	-	-	-	7	7
Vt.	5	6	-	-	-	-	1	-	6	4
Mass.	34	34	1	1	-	5	2	1	350	60
R.I.	2	3	-	-	-	-	-	1	9	11
Conn.	22	11	-	-	2	-	-	-	29	34
MID. ATLANTIC	184	159	-	-	3	2	26	22	276	588
Upstate N.Y.	64	54	-	-	3	2	3	6	38	48
N.Y. City	41	27	-	-	-	-	9	5	92	220
N.J.	25	34	-	-	-	-	2	5	57	90
Pa.	54	44	-	-	-	-	12	6	89	230
E.N. CENTRAL	130	147	-	1	10	4	19	28	208	255
Ohio	60	39	-	-	2	-	10	7	24	44
Ind.	28	22	-	-	4	2	1	-	15	20
Ill.	20	59	-	-	-	-	6	16	78	79
Mich.	10	9	-	1	4	2	1	-	73	83
Wis.	12	18	-	-	-	-	1	5	18	29
W.N. CENTRAL	52	60	2	-	3	6	4	6	88	76
Minn.	21	22	1	-	3	6	-	1	23	20
Iowa	1	-	1	-	-	-	-	-	24	15
Mo.	15	26	-	-	-	-	2	5	25	22
N. Dak.	3	1	-	-	-	-	-	-	1	-
S. Dak.	-	1	-	-	-	-	-	-	2	-
Nebr.	5	-	-	-	-	-	-	-	7	5
Kans.	7	10	-	-	-	-	2	-	6	14
S. ATLANTIC	220	166	-	-	12	7	18	11	448	616
Del.	8	-	-	-	-	-	2	-	4	4
Md.	35	38	-	-	2	4	-	-	64	59
D.C.	-	-	-	-	-	-	-	-	4	20
Va.	19	16	-	-	-	-	1	4	42	36
W. Va.	10	7	-	-	-	-	3	-	2	8
N.C.	30	13	-	-	4	-	-	-	33	32
S.C.	2	2	-	-	-	-	-	-	17	23
Ga.	57	34	-	-	-	-	11	4	165	246
Fla.	59	56	-	-	6	3	1	3	117	188
E.S. CENTRAL	33	43	-	1	-	2	7	4	75	76
Ky.	-	3	-	-	-	1	-	-	11	13
Tenn.	23	24	-	-	-	1	5	3	45	41
Ala.	10	16	-	1	-	-	2	1	6	11
Miss.	-	-	-	-	-	-	-	-	13	11
W.S. CENTRAL	34	43	1	1	3	6	1	3	188	284
Ark.	1	4	-	-	-	1	-	-	38	18
La.	7	15	-	-	-	2	1	3	11	24
Okla.	25	23	-	-	3	3	-	-	16	5
Tex.	1	1	1	1	-	-	-	-	123	237
MOUNTAIN	116	99	3	5	12	15	14	12	215	185
Mont.	-	-	-	-	-	-	-	-	3	2
Idaho	5	2	-	-	-	-	2	1	10	9
Wyo.	-	1	-	-	-	-	-	-	2	1
Colo.	25	16	-	-	-	-	3	4	21	26
N. Mex.	23	13	-	-	4	3	3	1	5	8
Ariz.	46	55	-	5	7	3	1	4	142	104
Utah	9	7	2	-	-	2	3	2	27	13
Nev.	8	5	1	-	1	3	2	-	5	22
PACIFIC	36	87	2	2	-	16	5	15	456	538
Wash.	3	3	2	-	-	2	1	1	26	30
Oreg.	23	21	-	-	-	-	1	2	35	30
Calif.	3	39	-	2	-	14	2	7	384	469
Alaska	2	18	-	-	-	-	1	5	4	5
Hawaii	5	6	-	-	-	-	-	-	7	4
Guam	-	-	-	-	-	-	-	-	-	1
P.R.	-	-	-	-	-	-	-	-	7	38
V.I.	-	-	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	-	U	-	U

N: Not notifiable. U: Unavailable. -: No reported cases.

\* Incidence data for reporting years 2003 and 2004 are provisional and cumulative (year-to-date).

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending June 12, 2004, and June 7, 2003 (23rd Week)\*

Reporting area	Hepatitis (viral, acute), by type				Legionellosis		Listeriosis		Lyme disease	
	B		C		Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003
	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003						
UNITED STATES	2,545	2,943	522	476	436	489	186	228	3,386	3,950
NEW ENGLAND	138	148	3	2	10	16	10	8	314	491
Maine	1	-	-	-	-	-	2	-	51	-
N.H.	21	9	-	-	-	2	1	2	20	8
Vt.	1	2	1	2	1	1	-	-	10	4
Mass.	72	102	2	-	4	6	2	4	108	258
R.I.	3	4	-	-	1	1	1	-	43	97
Conn.	40	31	U	U	4	6	4	2	82	124
MID. ATLANTIC	417	373	54	53	108	99	40	40	2,598	2,857
Upstate N.Y.	43	33	5	7	24	30	14	8	923	897
N.Y. City	43	123	-	-	6	11	4	10	-	42
N.J.	202	98	-	-	23	5	9	7	587	749
Pa.	129	119	49	46	55	53	13	15	1,088	1,169
E.N. CENTRAL	218	220	31	70	100	115	28	28	41	156
Ohio	65	65	6	4	49	52	12	5	33	15
Ind.	8	10	2	1	9	7	5	1	1	7
Ill.	27	18	2	12	2	16	-	8	-	9
Mich.	118	104	21	50	38	30	10	10	1	-
Wis.	-	23	-	3	2	10	1	4	6	125
W.N. CENTRAL	181	125	182	108	9	23	5	8	59	48
Minn.	19	15	2	3	-	2	2	2	20	27
Iowa	9	4	-	-	2	5	1	-	8	7
Mo.	132	85	180	104	5	10	2	3	25	11
N. Dak.	1	-	-	-	1	1	-	-	-	-
S. Dak.	-	1	-	-	1	-	-	-	-	-
Nebr.	11	11	-	1	-	2	-	3	3	1
Kans.	9	9	-	-	-	3	-	-	3	2
S. ATLANTIC	799	764	88	76	106	131	27	52	306	291
Del.	16	4	-	-	3	-	N	N	33	52
Md.	68	49	7	5	15	25	4	5	185	185
D.C.	12	1	1	-	3	1	-	-	2	3
Va.	90	58	11	1	8	8	4	7	12	14
W. Va.	2	7	15	1	2	3	1	2	2	1
N.C.	74	76	6	5	9	9	5	9	45	19
S.C.	48	73	7	17	1	4	-	2	1	1
Ga.	251	234	6	6	9	15	5	15	2	8
Fla.	238	262	35	41	56	66	8	12	24	8
E.S. CENTRAL	188	181	53	40	18	26	13	8	21	21
Ky.	24	36	15	7	6	8	4	1	7	3
Tenn.	88	68	24	9	10	11	8	1	9	6
Ala.	30	34	1	5	2	5	1	4	1	1
Miss.	46	43	13	19	-	2	-	2	4	11
W.S. CENTRAL	77	491	61	86	28	27	14	28	6	48
Ark.	25	43	-	3	-	1	-	-	-	-
La.	26	69	33	49	1	1	1	1	-	6
Okla.	16	27	2	-	2	2	-	1	-	-
Tex.	10	352	26	34	25	23	13	26	6	42
MOUNTAIN	216	265	22	15	29	27	8	14	8	3
Mont.	1	8	2	1	1	1	-	1	-	-
Idaho	6	4	-	1	3	3	1	-	2	1
Wyo.	6	17	-	-	4	1	-	-	1	-
Colo.	21	42	4	4	4	5	2	6	-	-
N. Mex.	7	20	4	-	-	2	-	2	-	-
Ariz.	119	125	2	4	5	6	-	4	1	-
Utah	21	18	2	-	10	6	-	1	4	1
Nev.	35	31	8	5	2	3	5	-	-	1
PACIFIC	311	376	28	26	28	25	41	42	33	35
Wash.	23	30	7	10	5	3	6	3	3	-
Oreg.	46	60	8	4	N	N	4	1	15	8
Calif.	228	275	10	11	23	22	31	38	15	26
Alaska	12	3	-	-	-	-	-	-	-	1
Hawaii	2	8	3	1	-	-	-	-	N	N
Guam	-	3	-	1	-	-	-	-	-	-
P.R.	14	69	-	-	1	-	-	-	N	N
V.I.	-	-	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	-	U	-	U

N: Not notifiable. U: Unavailable. -: No reported cases.

\* Incidence data for reporting years 2003 and 2004 are provisional and cumulative (year-to-date).

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending June 12, 2004, and June 7, 2003 (23rd Week)\*

Reporting area	Malaria		Meningococcal disease		Pertussis		Rabies, animal		Rocky Mountain spotted fever	
	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003
UNITED STATES	431	414	700	902	3,785	2,978	2,064	3,065	273	169
NEW ENGLAND	40	10	33	42	749	293	220	197	11	1
Maine	5	1	8	5	2	2	28	19	-	-
N.H.	-	2	3	3	20	18	8	10	-	-
Vt.	2	-	1	-	34	29	9	12	-	-
Mass.	21	7	19	26	672	223	89	74	10	1
R.I.	2	-	1	2	9	5	13	25	1	-
Conn.	10	-	1	6	12	16	73	57	-	-
MID. ATLANTIC	96	98	86	110	1,015	293	185	363	20	12
Upstate N.Y.	15	19	21	23	727	114	152	135	1	-
N.Y. City	38	52	14	26	60	45	4	4	3	4
N.J.	20	13	18	15	83	46	-	62	5	5
Pa.	23	14	33	46	145	88	29	162	11	3
E.N. CENTRAL	28	44	99	146	458	225	17	28	14	7
Ohio	10	7	41	37	175	97	7	10	10	3
Ind.	-	-	12	25	40	28	3	2	1	1
Ill.	2	22	9	42	17	18	6	4	-	2
Mich.	10	12	30	24	46	20	1	12	3	1
Wis.	6	3	7	18	180	62	-	-	-	-
W.N. CENTRAL	28	18	45	67	232	129	201	310	21	7
Minn.	13	11	12	16	40	39	22	11	-	-
Iowa	1	2	10	12	30	34	29	33	-	1
Mo.	4	1	11	27	128	28	7	2	16	6
N. Dak.	2	-	1	-	8	2	26	29	-	-
S. Dak.	1	-	1	-	9	2	10	67	-	-
Nebr.	2	-	2	5	2	2	53	64	5	-
Kans.	5	4	8	6	15	22	54	104	-	-
S. ATLANTIC	124	101	131	158	222	189	757	1,245	127	109
Del.	3	-	2	8	5	1	9	23	-	-
Md.	28	26	7	13	41	27	50	175	11	22
D.C.	7	5	4	3	2	-	-	-	-	-
Va.	10	7	9	11	57	33	203	238	1	1
W. Va.	-	4	4	1	4	5	32	37	-	-
N.C.	9	6	20	19	43	65	292	333	103	54
S.C.	7	2	12	13	25	9	61	83	5	8
Ga.	16	20	7	19	8	18	107	168	1	20
Fla.	44	31	66	71	37	31	3	188	6	4
E.S. CENTRAL	15	9	29	41	49	61	58	95	39	25
Ky.	1	1	3	8	9	15	11	15	-	-
Tenn.	3	4	10	9	28	31	20	69	21	16
Ala.	9	2	6	12	6	10	24	10	9	3
Miss.	2	2	10	12	6	5	3	1	9	6
W.S. CENTRAL	40	51	66	108	176	182	518	691	34	5
Ark.	5	3	12	10	9	10	24	25	12	-
La.	2	2	16	30	3	5	-	-	3	-
Okla.	2	2	4	8	13	14	61	112	19	2
Tex.	31	44	34	60	151	153	433	554	-	3
MOUNTAIN	14	14	31	49	449	478	42	47	3	3
Mont.	-	-	1	2	13	-	5	7	-	-
Idaho	1	1	4	5	17	17	-	1	1	1
Wyo.	-	-	2	2	3	119	-	-	-	2
Colo.	5	10	9	12	231	175	5	3	-	-
N. Mex.	1	-	4	5	53	23	-	3	-	-
Ariz.	2	2	6	19	92	85	32	31	1	-
Utah	3	1	3	-	30	44	-	1	1	-
Nev.	2	-	2	4	10	15	-	1	-	-
PACIFIC	46	69	180	181	435	1,128	66	89	4	-
Wash.	2	10	18	16	188	205	-	-	-	-
Oreg.	8	6	38	32	197	202	-	2	2	-
Calif.	35	51	119	124	35	715	58	82	2	-
Alaska	-	-	1	2	8	-	8	5	-	-
Hawaii	1	2	4	7	7	6	-	-	-	-
Guam	-	-	-	-	-	-	-	-	-	-
P.R.	-	-	2	6	2	1	19	28	N	N
V.I.	-	-	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	-	U	-	U

N: Not notifiable. U: Unavailable. -: No reported cases.

\* Incidence data for reporting years 2003 and 2004 are provisional and cumulative (year-to-date).



TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending June 12, 2004, and June 7, 2003 (23rd Week)\*

Reporting area	Salmonellosis		Shigellosis		Streptococcal disease, invasive, group A		Streptococcus pneumoniae, invasive			
							Drug resistant, all ages		Age <5 years	
	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003
UNITED STATES	11,102	12,389	4,344	9,586	2,342	3,301	1,224	1,243	277	294
NEW ENGLAND	568	621	100	121	116	314	15	59	5	1
Maine	34	40	2	4	4	17	2	-	1	-
N.H.	34	44	4	4	12	20	-	-	N	N
Vt.	19	19	2	5	5	14	7	5	1	1
Mass.	310	355	63	75	78	140	N	N	N	N
R.I.	43	31	6	3	17	5	6	7	3	-
Conn.	128	132	23	30	-	118	-	47	U	U
MID. ATLANTIC	1,465	1,542	525	928	399	568	87	74	57	53
Upstate N.Y.	373	313	260	132	135	203	41	35	41	40
N.Y. City	395	443	140	167	54	88	U	U	U	U
N.J.	228	253	76	169	74	115	-	-	2	-
Pa.	469	533	49	460	136	162	46	39	14	13
E.N. CENTRAL	1,468	1,728	308	820	422	824	276	260	88	101
Ohio	405	482	72	120	141	187	198	177	52	55
Ind.	158	190	59	54	61	72	78	83	21	15
Ill.	321	564	87	471	36	217	-	-	-	-
Mich.	303	258	43	111	164	240	N	N	N	N
Wis.	281	234	47	64	20	108	N	N	15	31
W.N. CENTRAL	840	691	159	305	179	200	126	99	28	29
Minn.	195	182	20	39	86	93	-	-	23	25
Iowa	173	130	32	22	N	N	N	N	N	N
Mo.	238	180	67	142	40	45	6	6	4	2
N. Dak.	15	15	1	3	8	8	-	3	1	2
S. Dak.	29	30	6	8	8	16	3	-	-	-
Nebr.	58	60	7	60	9	19	-	-	N	N
Kans.	132	94	26	31	28	19	117	90	N	N
S. ATLANTIC	2,437	2,862	1,181	2,957	492	524	563	599	10	6
Del.	16	37	3	128	2	5	4	1	N	N
Md.	221	302	50	230	105	146	-	4	-	-
D.C.	14	14	20	30	5	4	3	-	3	-
Va.	284	294	43	139	40	62	N	N	N	N
W. Va.	50	32	-	-	16	25	64	37	7	6
N.C.	285	399	137	299	73	43	N	N	U	U
S.C.	140	153	183	191	35	21	51	89	N	N
Ga.	355	436	243	654	99	111	121	145	N	N
Fla.	1,072	1,195	502	1,286	117	107	320	323	N	N
E.S. CENTRAL	637	772	235	438	125	110	74	84	-	-
Ky.	121	130	34	52	41	29	19	11	N	N
Tenn.	180	258	93	153	84	81	55	73	N	N
Ala.	193	196	84	143	-	-	-	-	N	N
Miss.	143	188	24	90	-	-	-	-	-	-
W.S. CENTRAL	977	1,403	979	2,674	127	157	30	49	60	64
Ark.	152	167	20	38	6	4	5	17	7	4
La.	135	237	94	214	1	1	25	32	8	14
Okla.	114	115	222	385	31	49	N	N	24	27
Tex.	576	884	643	2,037	89	103	N	N	21	19
MOUNTAIN	859	820	314	392	278	285	16	17	29	40
Mont.	55	44	4	2	-	1	-	-	-	-
Idaho	60	80	5	10	4	11	N	N	N	N
Wyo.	20	46	1	1	5	1	4	3	-	-
Colo.	187	209	52	58	73	81	-	-	26	38
N. Mex.	82	69	44	85	51	72	5	13	-	-
Ariz.	293	229	172	198	118	100	N	N	N	N
Utah	89	72	16	21	26	18	5	1	3	2
Nev.	73	71	20	17	1	1	2	-	-	-
PACIFIC	1,851	1,950	543	951	204	319	37	2	-	-
Wash.	157	224	36	83	24	29	-	-	N	N
Oreg.	162	175	29	43	N	N	N	N	N	N
Calif.	1,364	1,432	453	807	140	235	N	N	N	N
Alaska	32	39	4	4	-	-	-	-	N	N
Hawaii	136	80	21	14	40	55	37	2	-	-
Guam	-	19	-	20	-	-	-	-	-	-
P.R.	55	272	1	4	N	N	N	N	N	N
V.I.	-	-	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	3	U	-	U	-	U	-	U	-	U

N: Not notifiable. U: Unavailable. - : No reported cases.  
 \* Incidence data for reporting years 2003 and 2004 are provisional and cumulative (year-to-date).

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending June 12, 2004, and June 7, 2003 (23rd Week)\*

Reporting area	Syphilis				Tuberculosis		Typhoid fever		Varicella (Chickenpox)	
	Primary & secondary		Congenital							
	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003
UNITED STATES	3,019	3,110	131	207	3,720	5,180	104	134	8,184	8,841
NEW ENGLAND	70	93	1	-	146	169	13	13	395	1,920
Maine	-	4	-	-	-	10	-	-	44	594
N.H.	3	12	-	-	7	8	-	1	-	-
Vt.	-	-	-	-	-	5	-	-	-	-
Mass.	49	61	-	-	93	75	11	7	-	412
R.I.	9	8	-	-	11	24	2	2	-	95
Conn.	9	8	1	-	35	47	-	3	-	3
MID. ATLANTIC	445	344	26	33	816	928	24	22	31	10
Upstate N.Y.	41	15	2	3	94	95	2	3	-	-
N.Y. City	225	191	9	19	435	510	5	12	-	-
N.J.	73	71	15	11	162	163	9	6	-	-
Pa.	106	67	-	-	125	160	8	1	31	10
E.N. CENTRAL	318	428	33	38	448	482	4	16	3,671	3,442
Ohio	101	91	1	2	73	79	1	-	923	872
Ind.	23	20	8	7	56	52	-	4	-	-
Ill.	95	174	2	13	218	227	-	6	-	-
Mich.	89	132	22	16	72	96	2	6	2,409	2,043
Wis.	10	11	-	-	29	28	1	-	339	527
W.N. CENTRAL	60	86	-	3	154	207	2	3	114	29
Minn.	11	26	-	-	67	72	1	1	-	-
Iowa	2	7	-	-	15	11	-	1	N	N
Mo.	30	30	-	3	37	60	1	1	2	-
N. Dak.	-	-	-	-	3	-	-	-	69	29
S. Dak.	-	-	-	-	4	13	-	-	43	-
Nebr.	4	3	-	-	6	9	-	-	-	-
Kans.	13	20	-	-	22	42	-	-	-	-
S. ATLANTIC	814	816	16	44	760	939	17	26	1,326	1,215
Del.	3	8	-	-	-	-	-	-	4	10
Md.	161	122	2	7	91	88	2	7	-	-
D.C.	33	25	1	-	-	-	-	-	16	14
Va.	47	38	1	1	84	93	3	11	344	298
W. Va.	2	1	-	-	10	10	-	-	750	759
N.C.	66	72	3	9	92	99	2	4	N	N
S.C.	46	51	-	4	83	55	-	-	212	134
Ga.	132	204	-	11	11	225	8	2	-	-
Fla.	324	295	9	12	389	369	2	2	-	-
E.S. CENTRAL	169	152	6	7	240	284	4	2	2	-
Ky.	23	21	-	1	39	50	2	-	-	-
Tenn.	65	65	1	1	81	85	2	1	-	-
Ala.	68	55	3	4	87	106	-	1	-	-
Miss.	13	11	2	1	33	43	-	-	2	-
W.S. CENTRAL	479	362	20	32	224	846	7	7	1,160	1,935
Ark.	18	19	-	1	59	44	-	-	-	-
La.	95	46	-	-	-	-	-	-	34	8
Okla.	12	20	2	1	62	61	-	-	-	-
Tex.	354	277	18	30	103	741	7	7	1,126	1,927
MOUNTAIN	149	141	26	18	154	153	5	4	1,485	290
Mont.	-	-	-	-	-	-	-	-	-	-
Idaho	10	4	1	-	-	1	-	-	-	-
Wyo.	1	-	-	-	1	2	-	-	18	23
Colo.	9	19	-	3	37	38	1	3	1,110	-
N. Mex.	25	28	1	4	-	24	-	-	63	-
Ariz.	94	82	24	11	96	63	2	1	-	-
Utah	2	2	-	-	20	13	1	-	294	267
Nev.	8	6	-	-	-	12	1	-	-	-
PACIFIC	515	688	3	32	778	1,172	28	41	-	-
Wash.	39	33	-	-	85	106	2	2	-	-
Oreg.	9	17	-	-	34	44	1	2	-	-
Calif.	465	631	3	32	597	948	19	37	-	-
Alaska	-	1	-	-	13	28	-	-	-	-
Hawaii	2	6	-	-	49	46	6	-	-	-
Guam	-	1	-	-	-	27	-	-	-	81
P.R.	54	94	2	8	14	38	-	-	137	257
V.I.	4	1	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	2	U	-	U	10	U	-	U	-	U

N: Not notifiable. U: Unavailable. -: No reported cases.

\* Incidence data for reporting years 2003 and 2004 are provisional and cumulative (year-to-date).

TABLE III. Deaths in 122 U.S. cities,\* week ending June 12, 2004 (23rd Week)

All causes, by age (years)								All causes, by age (years)								
Reporting Area	All Ages	>65	45-64	25-44	1-24	<1	P&I <sup>†</sup> Total	Reporting Area	All Ages	>65	45-64	25-44	1-24	<1	P&I <sup>†</sup> Total	
NEW ENGLAND	515	353	120	20	13	9	50	S. ATLANTIC	1,248	749	308	115	49	27	67	
Boston, Mass.	149	90	47	2	6	4	14	Atlanta, Ga.	160	91	44	19	5	1	10	
Bridgeport, Conn.	38	29	7	1	1	-	7	Baltimore, Md.	171	100	41	18	9	3	14	
Cambridge, Mass.	17	11	4	2	-	-	2	Charlotte, N.C.	110	72	25	8	4	1	9	
Fall River, Mass.	16	14	2	-	-	-	5	Jacksonville, Fla.	152	84	39	17	6	6	5	
Hartford, Conn.	44	32	11	1	-	-	9	Miami, Fla.	150	92	37	13	6	2	5	
Lowell, Mass.	23	20	1	1	1	-	-	Norfolk, Va.	42	25	11	3	2	1	-	
Lynn, Mass.	12	10	2	-	-	-	-	Richmond, Va.	65	24	25	7	5	4	4	
New Bedford, Mass.	32	18	9	2	2	1	3	Savannah, Ga.	51	28	17	4	1	1	1	
New Haven, Conn.	U	U	U	U	U	U	U	St. Petersburg, Fla.	51	34	8	5	2	2	2	
Providence, R.I.	54	38	13	2	-	1	-	Tampa, Fla.	196	140	36	13	5	2	12	
Somerville, Mass.	3	2	1	-	-	-	-	Washington, D.C.	100	59	25	8	4	4	4	
Springfield, Mass.	38	22	9	4	1	2	-	Wilmington, Del.	U	U	U	U	U	U	U	
Waterbury, Conn.	33	26	4	2	1	-	4	E.S. CENTRAL	676	444	152	44	16	20	34	
Worcester, Mass.	56	41	10	3	1	1	6	Birmingham, Ala.	177	110	48	11	5	3	10	
MID. ATLANTIC	2,203	1,500	465	153	40	43	108	Chattanooga, Tenn.	54	39	9	4	1	1	6	
Albany, N.Y.	49	35	10	3	-	1	5	Knoxville, Tenn.	78	47	18	7	3	3	-	
Allentown, Pa.	17	16	1	-	-	-	-	Lexington, Ky.	38	21	10	4	1	2	3	
Buffalo, N.Y.	73	51	15	7	-	-	4	Memphis, Tenn.	122	83	26	4	2	7	6	
Camden, N.J.	29	20	7	1	1	-	2	Mobile, Ala.	78	53	15	8	1	1	3	
Elizabeth, N.J.	25	19	2	3	-	1	-	Montgomery, Ala.	29	23	5	-	-	1	2	
Erie, Pa.	40	28	7	2	-	3	3	Nashville, Tenn.	100	68	21	6	3	2	4	
Jersey City, N.J.	34	22	5	5	2	-	-	W.S. CENTRAL	1,499	961	338	123	37	40	77	
New York City, N.Y.	1,072	709	243	76	19	25	42	Austin, Tex.	72	49	12	7	1	3	5	
Newark, N.J.	37	19	9	5	1	1	2	Baton Rouge, La.	38	25	12	1	-	-	-	
Paterson, N.J.	14	5	8	1	-	-	-	Corpus Christi, Tex.	48	37	9	1	-	1	3	
Philadelphia, Pa.	383	243	94	27	13	6	17	Dallas, Tex.	204	124	46	23	5	6	11	
Pittsburgh, Pa. <sup>‡</sup>	20	17	3	-	-	-	1	El Paso, Tex.	79	51	17	8	2	1	2	
Reading, Pa.	20	15	-	2	1	2	2	Ft. Worth, Tex.	128	83	29	5	5	6	7	
Rochester, N.Y.	142	107	24	7	2	2	18	Houston, Tex.	376	221	95	42	7	11	19	
Schenectady, N.Y.	29	23	4	2	-	-	1	Little Rock, Ark.	68	41	15	7	1	4	1	
Scranton, Pa.	28	21	5	2	-	-	1	New Orleans, La.	49	33	12	4	-	-	-	
Syracuse, N.Y.	112	87	13	9	1	2	3	San Antonio, Tex.	249	161	58	15	8	7	19	
Trenton, N.J.	34	23	11	-	-	-	1	Shreveport, La.	54	43	11	-	-	-	4	
Utica, N.Y.	23	20	2	1	-	-	2	Tulsa, Okla.	134	93	22	10	8	1	6	
Yonkers, N.Y.	22	20	2	-	-	-	4	MOUNTAIN	979	636	231	62	24	25	62	
E.N. CENTRAL	2,109	1,448	429	134	48	50	125	Albuquerque, N.M.	114	72	27	11	3	1	7	
Akron, Ohio	53	37	9	6	-	1	6	Boise, Idaho	55	41	6	1	2	5	5	
Canton, Ohio	31	27	4	-	-	-	4	Colo. Springs, Colo.	40	29	9	-	-	2	1	
Chicago, Ill.	306	184	77	33	9	3	14	Denver, Colo.	98	56	26	9	3	4	11	
Cincinnati, Ohio	78	53	13	6	3	3	4	Las Vegas, Nev.	251	169	56	15	6	5	9	
Cleveland, Ohio	233	169	46	9	1	8	3	Ogden, Utah	29	18	5	3	2	1	1	
Columbus, Ohio	229	156	53	14	4	2	18	Phoenix, Ariz.	129	79	42	5	1	1	9	
Dayton, Ohio	116	84	20	5	5	2	13	Pueblo, Colo.	22	11	9	2	-	-	1	
Detroit, Mich.	175	104	39	15	7	10	13	Salt Lake City, Utah	108	66	25	12	2	3	7	
Evansville, Ind.	52	37	12	3	-	-	4	Tucson, Ariz.	133	95	26	4	5	3	11	
Fort Wayne, Ind.	78	52	16	4	6	-	8	PACIFIC	1,389	979	282	79	24	25	98	
Gary, Ind.	18	13	3	1	1	-	-	Berkeley, Calif.	14	10	2	2	-	-	1	
Grand Rapids, Mich.	59	46	9	2	1	1	8	Fresno, Calif.	159	116	30	9	4	-	6	
Indianapolis, Ind.	205	137	43	11	4	10	8	Glendale, Calif.	9	7	2	-	-	-	-	
Lansing, Mich.	45	28	13	3	-	1	3	Honolulu, Hawaii	70	55	11	2	1	1	2	
Milwaukee, Wis.	122	86	25	6	2	3	4	Long Beach, Calif.	89	57	24	4	1	3	12	
Peoria, Ill.	41	31	7	1	2	-	3	Los Angeles, Calif.	302	196	72	22	7	5	30	
Rockford, Ill.	58	43	8	4	1	2	7	Pasadena, Calif.	30	23	5	2	-	-	1	
South Bend, Ind.	50	36	11	2	-	1	-	Portland, Oreg.	139	91	30	7	4	7	3	
Toledo, Ohio	103	77	17	5	2	2	3	Sacramento, Calif.	U	U	U	U	U	U	U	
Youngstown, Ohio	57	48	4	4	-	1	2	San Diego, Calif.	131	92	24	8	4	3	12	
W.N. CENTRAL	577	402	116	40	4	13	45	San Francisco, Calif.	U	U	U	U	U	U	U	
Des Moines, Iowa	85	68	11	4	1	1	8	San Jose, Calif.	160	114	34	7	2	3	17	
Duluth, Minn.	29	22	6	-	1	-	2	Santa Cruz, Calif.	29	26	3	-	-	-	1	
Kansas City, Kans.	24	15	6	3	-	-	4	Seattle, Wash.	87	65	17	5	-	-	3	
Kansas City, Mo.	72	46	15	8	1	2	4	Spokane, Wash.	50	35	10	4	1	-	4	
Lincoln, Nebr.	48	38	6	3	-	1	5	Tacoma, Wash.	120	92	18	7	-	3	6	
Minneapolis, Minn.	51	31	14	4	-	2	6	TOTAL	11,195 <sup>§</sup>	7,472	2,441	770	255	252	666	
Omaha, Nebr.	85	62	14	6	1	2	7									
St. Louis, Mo.	74	42	21	5	-	4	3									
St. Paul, Minn.	64	44	16	4	-	-	4									
Wichita, Kans.	45	34	7	3	-	1	2									

U: Unavailable. - : No reported cases.

\* Mortality data in this table are voluntarily reported from 122 cities in the United States, most of which have populations of  $\geq 100,000$ . A death is reported by the place of its occurrence and by the week that the death certificate was filed. Fetal deaths are not included.<sup>†</sup> Pneumonia and influenza.<sup>‡</sup> Because of changes in reporting methods in this Pennsylvania city, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks.<sup>§</sup> Total includes unknown ages.

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☆U.S. Government Printing Office: 2004-633-140/00022 Region IV ISSN: 0149-2195

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